# **2011** Recommended Immunization Schedule for Individuals 0 through 6 Years Old For those who fall behind or start late, see the catch-up schedule.

Vaccine → Age →	Birth	1 Month	2 Month	4 Month	6 Month	12 Month	15 Month	18 Month	19-23 Month	2-3 Years	4-6 Years		
Hepatitis B <sup>1</sup>	Нер В	Hep B			Hep B								
Rotavirus <sup>2</sup>			RV	RV	<b>RV</b> <sup>2</sup>							Ra re	
Diphtheria, Tetanus, Pertussis			DTaP	DTaP	DTaP	see footnote 3	DT	aP			DTaP	ch	
Haemophilus influenzae type b			Hib	Hib	Hib⁴	Н	ib						
Pneumococcal <sup>5</sup>		-	PCV	PCV	PCV	P	CV			PI	PSV	9	
Inactivated Poliovirus			IPV	IPV		IF	PV				IPV	Ra	
Influenza <sup>7</sup>							Influ	i <mark>enza (Y</mark>	early)	arly)			
Measles, Mumps, Rubella®						MI	VIR	see footnote 8		MMR	hi		
<b>Varicella</b> <sup>9</sup>						Varicella		see footnote 9		Varicella			
Hepatitis A <sup>10</sup>							Hep A (	2 doses)		Hep A	Series		
Meningococcal <sup>11</sup>										M	CV4		

This schedule includes recommendations in effect as of December 21, 2010. Any dose not administered at the recommended age should be administered at a subsequent visit, when indicated and feasible. The use of a combination vaccine generally is preferred over separate injections of its equivalent component vaccines. Considerations should include provider assessment, patient preference and the potential for adverse events.

# 1. Hepatitis B vaccine (HepB).

(Minimum age: birth)

At birth:

- Administer monovalent HepB to all newborns before hospital discharge.
- If mother is hepatitis B surface antigen (HBsAg)-positive, administer HepB and 0.5 mL of hepatitis B immune globulin (HBIG) within 12 hours of birth.
- If mother's HBsAg status is unknown, administer HepB within 12 hours of birth. Determine mother's HBsAg status as soon as possible and, if HBsAg-positive, administer HBIG (no later than age 1 week).

## Doses following the birth dose:

- The second dose should be administered at age 1 or 2 months. Monovalent HepB should be used for doses administered before age 6 weeks.
- Infants born to HBsAg-positive mothers should be tested for HBsAg and antibody to HB sAg 1 to 2 months after completion of at least 3 doses of the HepB series, at age 9 through 18 months (generally at the next well-child visit).
- Administration of 4 doses of HepB to infants is permissible when a combination vaccine containing HepB is administered after the birth dose.
- Infants who did not receive a birth dose should receive 3 doses of HepB on a schedule of 0, 1, and 6 months.
- The final (3rd or 4th) dose in the HepB series should be administered no earlier than age 24 weeks.

# 2. Rotavirus vaccine (RV).

(Minimum age: 6 weeks)

- Administer the first dose at age 6 through 14 weeks (maximum age: 14 weeks 6 days). Vaccination should not be initiated for infants aged 15 weeks 0 days or older.
- The maximum age for the final dose in the series is age 8 months 0 days.
- If Rotarix® is administered at ages 2 and 4 months, a dose at 6 months is not indicated.

# 3. Diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP).

(Minimum age: 6 weeks)

• The fourth dose may be administered as early as age 12 months, provided at least 6 months have elapsed since the third dose.

#### 4. Haemophilus influenzae type b conjugate vaccine (Hib).

(Minimum age: 6 weeks)

- If PRP-OMP (PedvaxHIB® or Comvax® [HepB-Hib]) is administered at ages 2 and 4 months, a dose at age 6 months is not indicated.
- Hiberix® should not be used for doses at ages 2, 4, or 6 months for the primary series but can be used as the final dose in children aged 12 months through 4 years.

#### 5. Pneumococcal vaccine.

(Minimum age: 6 weeks for pneumococcal conjugate vaccine [PCV]; 2 years for pneumococcal polysaccharide vaccine [PPSV])

- PCV is recommended for all children aged younger than 5 years. Administer 1 dose of PCV to all
  healthy children aged 24 through 59 months who are not completely vaccinated for their age.
- A PCV series begun with 7-valent PCV (PCV7) should be completed with 13-valent PCV (PCV13).
- A single supplemental dose of PCV13 is recommended for all children aged 14 through 59 months who have received an age-appropriate series of PCV7.
- A single supplemental dose of PCV13 is recommended for all children aged 60 through 71 months with underlying medical conditions who have received an age-appropriate series of PCV7.
- The supplemental dose of PCV13 should be administered at least 8 weeks after the previous dose of PCV7. See MMWR 2010; 59(No. RR-11).
- Administer PPSV at least 8 weeks after last dose of PCV to children aged 2 years or older with certain underlying medical conditions, including a cochlear implant.

# 6. Inactivated poliovirus vaccine (IPV).

Minimum age: 6 weeks)

- If 4 or more doses are administered prior to age 4 years an additional dose should be administered at age 4 through 6 years.
- The final dose in the series should be administered on or after the fourth birthday and at least 6 months following the previous dose.

# 7. Influenza vaccine (seasonal).

(Minimum age: 6 months for trivalent inactivated influenza vaccine [TIV]; 2 years for live, attenuated influenza vaccine [LAIV])

- For healthy children aged 2 years and older (i.e., those who do not have underlying medical conditions that predispose them to influenza complications), either LAIV or TIV may be used, except LAIV should not be given to children aged 2 through 4 years who have had wheezing in the past 12 months.
- Administer 2 doses (separated by at least 4 weeks) to children aged 6 months through 8 years who are receiving seasonal influenza vaccine for the first time or who were vaccinated for the first time during the previous influenza season but only received 1 dose.
- Children aged 6 months through 8 years who received no doses of monovalent 2009 H1N1 vaccine should receive 2 doses of 2010–2011 seasonal influenza vaccine.

  See MMWR 2010; 59(No. RR-8):33–34.

# 8. Measles, mumps, and rubella vaccine (MMR).

(Minimum age: 12 months)

• The second dose may be administered before age 4 years, provided at least 4 weeks have elapsed since the first dose

### 9. Varicella vaccine.

(Minimum age: 12 months)

- The second dose may be administered before age 4 years, provided at least 3 months have elapsed since the first dose.
- For children aged 12 months through 12 years the recommended minimum interval between doses is 3 months. However, if the second dose was administered at least 4 weeks after the first dose, it can be accepted as valid.

#### 10. Hepatitis A vaccine (HepA).

(Minimum age: 12 months)

- Administer 2 doses at least 6 months apart.
- HepA is recommended for children aged older than 23 months who live in areas where vaccination
  programs target older children, who are at increased risk for infection, or for whom immunity
  against hepatitis A is desired.

# 11. Meningococcal vaccine, quadravalent (MCV4).

(Minimum age: 2 years)

- Administer 2 doses of MCV4 at least 8 weeks apart to children aged 2 through 10 years with
  persistent complement component deficiency and anatomic or functional asplenia, and 1 dose
  every 5 years thereafter.
- Persons with human immunodeficiency virus (HIV) infection who are vaccinated with MCV4 should receive 2 doses at least 8 weeks apart.
- Administer 1 dose of MCV4 to children aged 2 through 10 years who travel to countries with highly
  endemic or epidemic disease and during outbreaks caused by a vaccine serogroup.
- Administer MCV4 to children at continued risk for meningococcal disease who were previously
  vaccinated with MCV4 or meningococcal polysaccharide vaccine after 3 years if the first dose was
  administered at age 2 through 6 years.

Information about reporting reactions after immunization is available at www.vaers.hhs.gov or at 800.822.7967. Suspected cases of vaccine-preventable diseases should be reported to the state or local health department. Additional information, including precautions and contraindications for immunization, is available from the National Center for Immunization and Respiratory Diseases at www.cdc.gov/vaccines or at 800.232.4636 (800.CDC.INFO).

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